TABLE 2-7.B: MALIBU VILLAGE PLAZA WASTEWATER TREATMENT SYSTEM EFFLUENT – PRIORITY POLLUTANTS

Date	Location	Silver	Beryllium	Cadmium	Mercury	Lead	Selenium	Thallium	Aldrin	Alpha-BHC	Beta-BHC	Gamma-BHC (Lindane)	Delta-BHC	Chlordane	4,4'-DDT	4,4'-DDE	4,4'-DDD	Dieldrin	Endosulfan I	Endosulfan II
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Detection Limit		0.2	0.2	0.2	0.2	0.2	2	0.2	0.005	0.01	0.005	0.01	0.005	0.1	0.01	0.01	0.01	0.01	0.01	0.01
December-07	DD-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
December-08	DD-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Date	Location	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Heptachlor	Bromoform	Heptachlor epoxide	Aroclor 1242	Aroclor 1254	Aroclor 1221	Aroclor 1232	Aroclor 1248	Aroclor 1260	Aroclor 1016	Toxaphene	Arsenic	Chromium	Copper	Nickel	Antimony	Zinc
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Detection Limit		0.01	0.01	0.01	0.01	0.5	0.001	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.5	1	1
December-07	DD-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	1.6	8.1	4.4	1.2	7.6
December-08	DD-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	2.2	7.4	4.0	ND	3.9

2.3 Groundwater Quality

Table 2-8 presents the groundwater quality data for the monitoring wells, illustrated on Figure 1-3. It is understood that the monitoring wells were installed as part of the City of Malibu, Malibu Civic Center Water Quality Risk Assessment, 2004.

TABLE 2-8: GROUNDWATER QUALITY DATA

Date	Location	pH	BOD	Total N	Organic N	Nitrate as N	Nitrite as N	Ammonia as N	Fecal Coliforms	Total Coliforms	Enterococcus	MBAS	Phosphorus, Total as P	Total Dissolved Solids	Chloride	Sulfate as SO4	Boron	Dichlorodifluoromethane	Chloromethane
Units			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	MPN/100ml	MPN/100ml	MPN/100ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	ug/l
Detection Limit		<0.1	5	Calc	0.05	0.02	0.02	0.01	2	2	1	0.05	0.01	5	1	1	0.1	0.5	0.5
GW Monitoring Well #1																			
8/14/2007	GW MW-1		ND	2.38	0.64	1.72	ND	0.02	ND	8	42.4	0.81	0.05	1468	133	ND	0.64	ND	ND
11/7/2007	GW MW-1	7	ND	2.26	0.23	1.92	ND	0.11	ND	12	ND	ND	0.08	1442	135	614	0.7		ND
2/14/2008	GW MW-1	6.8	ND	2.75	0.44	2.29	ND	0.02	13	50	84.5		0.29	1368	172	779	0.68	ND	ND
5/14/2008	GW MW-1	7.1	ND	2.21	0.17	1.97	ND	0.07	ND	ND	50.5	0.19	0.03	1280	169	617	0.5	ND	ND
8/28/2008	GW MW-1	7	ND	2.75	1.02	1.68	ND	0.05	ND	ND	9.8	0.08	0.26	1308	144	653	0.47	ND	ND
11/18/2008	GW MW-1	6.8	ND	1.55	0.26	1.2	ND	0.09	ND	23	7.2	0.7	0.49	980	161	484	0.51	ND	ND
5/27/2009	GW MW-1	6.6	<5	4.1	0.10	3.86	<0.02	0.14	<2	2	21.6	<0.05	0.36	1444	201	588	0.42	ND	ND
8/18/2009	GW MW-1	6.6	<5	2.4	0.38	1.89	<0.1	0.13	2	240	8.4	<0.05	0.05	1336	160	695	0.57	ND	ND
Well #1 Average:		6.8		2.6	0.4	2.07		0.08		56	32.1	0.45	0.20	1328	159	633	0.56		
GW Monitoring Well #2																			
8/14/2007	GW MW-2	6.6	ND	6.17	1.56	1.9	ND	2.71	ND	2	10.8	0.1	0.29	1892	153	563	0.66	ND	ND
11/7/2007	GW MW-2	6.9	11	4.62	1.3	1.84	ND	1.48	ND	280	5.2	0.06	0.03	1288	142	520	0.78		ND
2/6/2008	GW MW-2	6.4		6.55	1.19	5.29	ND	0.07	ND	30	ND			910	130	164	0.11	ND	ND
2/13/2008	GW MW-2	6.8	ND	3.98	1.31	1.69	ND	0.98	ND	7	3	ND	0.23	1176	201	688	0.56	ND	ND
5/14/2008	GW MW-2	7	11	22.22	1.22	16	0.04	4.96	ND	2	3	ND	0.24	1240	385	965	0.52	ND	ND
8/28/2008	GW MW-2	7	ND	3.39	0.56	2.28	ND	0.55	ND	23	9.7	ND	0.22	1288	200	612	0.6	ND	ND
11/18/2008	GW MW-2	6.9	5	2.89	ND	1.33	ND	1.56	90	ND	ND	0.09	0.23	1288	176	675	0.63	ND	ND
5/27/2009	GW MW-2	7	<5	3.64	0.07	2.56	0.11	0.9	<2	2	3.1	0.13	0.35	1436	177	648	0.56	ND	ND
8/18/2009	GW MW-2	6.8	6	7.301	0.13	6.35	0.201	0.62	<2	7	1.0	<0.5	0.09	1380	219	546	0.6	ND	ND
Well #2 Average:		6.9	8.3	6.8	0.8	4.67		1.39		50	4.2	0.09	0.20	1251	204	602	0.55		
GW Monitoring Well #3																			
8/14/2007	GW MW-3	6.7	8	2.87	1.5	0.74	ND	0.63	1600	8	165	0.31	1.23	1560	148	607	0.7	ND	ND
12/5/2007	GW MW-3	6.9	23	2.51	1.04	0.87	ND	0.6	ND	23	16	1.04	0.51	1228	258	477	0.67		ND
2/13/2008	GW MW-3	6.5	54		2.35	1.12	0.06	0.76	9	1600	2419.2	1.69	1.26	1296	161	661	0.63		
5/14/2008	GW MW-3	7.1	ND	2.33	0.48	1.09	ND	0.76	ND	2	11.9	ND	0.02	1432	168	640	0.61	ND	ND
8/28/2008	GW MW-3	6.9	ND	1.83	0.24	1.46	ND	0.13	ND	8	1	0.44	0.09	1524	282	693	0.6	ND	ND
11/18/2008	GW MW-3	6.9	24	2.71	1.46	0.94	0.09	0.22	1600	280	16.6	1.08	0.94	1344	242	598	0.79	ND	ND
5/27/2009	GW MW-3	7.1	<5	3.54	0.15	2.78	<0.02	0.61	2	4	1	0.27	0.19	1456	173	672	0.57	ND	ND
8/18/2009	GW MW-3	6.9	21	5.81	3.78	1.41	<0.1	0.62	<2	11	<1	0.19	0.07	1560	282	615	0.65	ND	ND
Well #3 Average:		6.9	26.0	3.1	1.4	1.30		0.54		242	375.8	0.72	0.54	1425	214	620	0.65		
GW Monitoring Well #4																			
8/17/2007	GW MW-4	6.4	30	31.4	4.56	1.04	ND	25.8	ND	22	ND	0.8	1.03	1120	149	626	0.24	ND	ND
12/6/2007	GW MW-4	6.5	ND	15.77	4.71	0.76	ND	10.3	23	23	ND	0.19	1.1	1112	149	478	0.67		ND
2/14/2008	GW MW-4	6.7	25	14.23	7.76	0.03	ND	6.44	14	1600	2419.2	0.1	1.08	1024	140	494	0.5	ND	ND
5/14/2008	GW MW-4	6.9	40	29.67	17	0.07	ND	12.6	500	>1600	2419.2	1.98	1.44	1080	299	868	0.22	ND	ND
8/28/2008	GW MW-4	6.8	ND	11.67	3.64	1.57	ND	6.46	ND	30	25.4	0.06	3.34	860	188	195	0.37	ND	ND
11/18/2008	GW MW-4	6.8	17	11.49	3.7	0.04	ND	7.75	1600	240	7.1	0.27	4.78	840	353	144	0.42	ND	ND
5/27/2009	GW MW-4	6.9	17	11.11	2.11	1.95	<0.02	7.05	2	13	<1	0.11	4.93	1436	173	555	0.33	ND	ND
8/18/2009	GW MW-4	7.0	38	14.82	1.89	6.23	<0.1	6.7	300	300	13.2	<.05	0.44	1168	230	368	0.57	ND	ND
Well #4 Average:		6.8	27.8	17.5	5.7	1.46		10.39		318	976.8	0.50	2.27	1080	210	466	0.42		
GW Monitoring Well #5																			
2/14/2008	GW MW-5	6.8	ND	1.89	0.6	0.11	ND	1.18	17	110	2	0.24	0.13	664	157	136	0.5	ND	ND
5/14/2008	GW MW-5	6.9	10	3.31	0.22	0.27	ND	2.82	ND	4	6.2	0.31	ND	816	235	140	0.28	ND	ND
8/28/2008	GW MW-5	6.9	ND	1.59	0.06	1.4	ND	0.13	500	>1600	5.2	ND	0.05	764	170	138	0.26	ND	ND
11/18/2008	GW MW-5	6.8	ND	1.91	0.36	1.47	ND	0.08	130	14	ND	0.06	0.09	672	283	115	0.48	ND	ND
5/27/2009	GW MW-5	7	<5	2.17	0.55	0.41	<0.02	1.21	<2	8	4	0.13	0.4	1124	307	247	0.42	ND	ND
8/18/2009	GW MW-5	6.8	17	0.51	<0.05	0.2	<0.1	0.31	<2.0	13	<1.0	0.09	0.16	944	324	107	0.52	ND	ND
Well #5 Average:		6.9	13.5	1.9	0.4	0.64		0.96		30	4.4	0.17	0.17	831	246	147	0.41		
GW Monitoring Well #6																			
8/14/2007	GW MW-6	6.5	ND	9.15	1.19	7.96	ND	ND	ND	30	58.5	0.26	ND	1340	117	446	0.56	ND	ND
12/10/2007	GW MW-6	6.9	ND	3.28	1.61	1.67	ND	ND	ND	ND	103	ND	1.81	936	161	600	0.67	ND	ND
2/14/2008	GW MW-6	6.8	ND	1.73	0.35	1.35	0.03	ND	2	11	5.1	0.18	0.18	1260	160	557	0.78	ND	ND
5/14/2008	GW MW-6	7	ND	1.67	0.39	1.25	ND	0.03	ND	ND	ND	0.19	ND	1260	271	826	0.55	ND	ND
8/28/2008	GW MW-6	7	ND	10.7	ND	10.7	ND	ND	ND	ND	9.3	0.05	ND	1324	187	529	0.54	ND	ND
11/18/2008	GW MW-6	6.9	ND	2.92	ND	2.92	ND	ND	2	ND	7	0.06	1.8	996	179	629	0.6	ND	ND
5/27/2009	GW MW-6	7.1	<5	2.12	0.22	1.86	0.02	0.02	<2	<2	10.8	0.15	0.89	1484	168	592	0.54	ND	ND
8/18/2009	GW MW-6	6.9	58	6.13	1.4	4.64	<0.1	0.09	2	130	19.9	<0.05	0.05	1356	168	584	0.55	ND	ND
Well #6 Average:		7.0		4.2	0.6	3.79		0.05		71	10.4	0.13	0.73	1280	189	620	0.59		

Date	Location	Trichlorofluoromethane	1,1-Dichloroethene	Acetone	Iodomethane	Carbon disulfide	Methylene Chloride	trans-1,2-Dichloroethene	Vinyl Acetate	1,1-Dichloroethane	2-Butanone	Chloroform	1,1,1-Trichloroethane	Carbon tetrachloride	Benzene	1,2-Dichloroethane	Trichloroethene	1,2-Dichloropropane	Dibromomethane
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Detection Limit		0.5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
GW Monitoring Well #1																			
8/14/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #1 Average:																			
GW Monitoring Well #2																			
8/14/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/6/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #2 Average:																			
GW Monitoring Well #3																			
8/14/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/5/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-3																		
5/14/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #3 Average:																			
GW Monitoring Well #4																			
8/17/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/6/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #4 Average:																			
GW Monitoring Well #5																			
2/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #5 Average:																			
GW Monitoring Well #6																			
8/14/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/10/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #6 Average:																			

Date	Location	Bromodichloromethane	cis-1,3-Dichloropropene	Methyl isobutyl ketone	Toluene	trans-1,3-Dichloropropene	1,1,2-Trichloroethane	Tetrachloroethene	2-Hexanone	Dibromochloromethane	1,2-Dibromoethane	Chlorobenzene	1,1,1,2-Tetrachloroethane	Ethylbenzene	m,p-Xylene	o-Xylene	Bromobenzene	1,1,4-Dichloro-2-butene	Bromobenzene
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Detection Limit		0.5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
GW Monitoring Well #1																			
8/14/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-1	ND	ND	ND	26.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #1 Average:																			
GW Monitoring Well #2																			
8/14/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/6/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #2 Average:																			
GW Monitoring Well #3																			
8/14/2007	GW MW-3	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/5/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-3																		
5/14/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #3 Average:																			
GW Monitoring Well #4																			
8/17/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/6/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #4 Average:																			
GW Monitoring Well #5																			
2/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #5 Average:																			
GW Monitoring Well #6																			
8/14/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/10/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #6 Average:																			

Date	Location	1,1,2,2-Tetrachloroethane	1,2,3-Trichloropropane	c-1,4-Dichloro-2-butene	Pentachloroethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	1,2-Dibromo-3-chloropropane	2-Chloroethylvinyl ether	Acrolein	Acrylonitrile	1,2-Dichloropropylene	Methyl tert-butyl ether	N-Nitrosodiethylamine	N-Nitrosodimethylamine	N-Nitroso-di-n-propylamine	Phenol	Bis (2-chloroethyl) ether
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Detection Limit		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	10	10	0.5	0.5	2	5	2	5	2
GW Monitoring Well #1																			
8/14/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #1 Average:																			
GW Monitoring Well #2																			
8/14/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/6/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #2 Average:																			
GW Monitoring Well #3																			
8/14/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/5/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-3														ND	ND	ND	6.1	ND
5/14/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #3 Average:																			
GW Monitoring Well #4																			
8/17/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/6/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #4 Average:																			
GW Monitoring Well #5																			
2/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #5 Average:																			
GW Monitoring Well #6																			
8/14/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/10/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #6 Average:																			

Date	Location	2-Chlorophenol	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Benzyl Alcohol	Bis (2-choloroisopropyl) ether	2-Methylphenol	Hexachloroethane	4-Methylphenol	Nitrobenzene	Isophorone	2-Nitrophenol	2,4-Dimethylphenol	Bis (2-chloroethoxy) methane	1,2-Diphenylhydrazine	Benzoic Acid	2,4-Dichlorophenol	1,2,4-Trichlorobenzene
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Detection Limit		5	5	5	5	10	2	2	2	5	2	2	2	2	2	1	25	2	2
GW Monitoring Well #1																			
8/14/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #1 Average:																			
GW Monitoring Well #2																			
8/14/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/6/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #2 Average:																			
GW Monitoring Well #3																			
8/14/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/5/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	38.4	ND	ND
5/14/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #3 Average:																			
GW Monitoring Well #4																			
8/17/2007	GW MW-4	ND	ND	ND	ND	ND	ND	70.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/6/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #4 Average:																			
GW Monitoring Well #5																			
2/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #5 Average:																			
GW Monitoring Well #6																			
8/14/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/10/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #6 Average:																			

Date	Location	Naphthalene	4-Chloroaniline	Hexachlorobutadiene	4-Chloro-3-methylphenol	2-Methylnaphthalene	Hexachlorocyclopentadiene	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	2-Chloronaphthalene	2-Nitroaniline	Dimethylphthalate	Acenaphthylene	2,6-Dinitrotoluene	Acenaphthene	2,6-Dinitrotoluene	Acenaphthene	3-Nitroaniline
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Detection Limit		2	2	2	5	2	2	5	2	2	5	2	2	5	2	5	10	2
GW Monitoring Well #1																		
8/14/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #1 Average:																		
GW Monitoring Well #2																		
8/14/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/6/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #2 Average:																		
GW Monitoring Well #3																		
8/14/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/5/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #3 Average:																		
GW Monitoring Well #4																		
8/17/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/6/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #4 Average:																		
GW Monitoring Well #5																		
2/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #5 Average:																		
GW Monitoring Well #6																		
8/14/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/10/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #6 Average:																		

Date	Location	2,4-Dinitrotoluene	4-Nitrophenol	Diethylphthalate	Fluorene	4-Chlorophenyl-phenyl ether	4-Nitroaniline	4,6-Dinitro-2-methylphenol	N-Nitrosodiphenylamine	4-Bromophenyl-phenyl ether	Hexachlorobenzene	Pentachlorophenol	Phenanthrene	Anthracene	Carbazole	Di-n-butylphthalate	Benzidine	Fluoranthene
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Detection Limit		5	10	2	2	2	10	10	2	2	2	10	2	2	2	2	10	2
GW Monitoring Well #1																		
8/14/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #1 Average:																		
GW Monitoring Well #2																		
8/14/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/6/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #2 Average:																		
GW Monitoring Well #3																		
8/14/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/5/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #3 Average:																		
GW Monitoring Well #4																		
8/17/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/6/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #4 Average:																		
GW Monitoring Well #5																		
2/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #5 Average:																		
GW Monitoring Well #6																		
8/14/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/10/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #6 Average:																		

Date	Location	Pyrene	Benzyl Butyl Phthalate	Benzo (a) anthracene	3,3' Dichlorobenzidine	Chrysene	Bis (2-ethylhexyl) phthalate	Di-n-octyl phthalate	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1,2,3-cd) pyrene	Dibenz (a,h) anthracene	Benzo (g,h,i) perylene
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Detection Limit		2	2	2	2	2	2	2	2	2	2	2	2	2
GW Monitoring Well #1														
8/14/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #1 Average:														
GW Monitoring Well #2														
8/14/2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/7/2007	GW MW-2	ND	ND	ND	ND	ND	9.3	ND	ND	ND	ND	ND	ND	ND
2/6/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #2 Average:														
GW Monitoring Well #3														
8/14/2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/5/2007	GW MW-3	ND	ND	ND	ND	ND	2.4	ND	ND	ND	ND	ND	ND	ND
2/13/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-3	ND	ND	ND	ND	ND	3.9	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #3 Average:														
GW Monitoring Well #4														
8/17/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/6/2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-4	ND	3.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #4 Average:														
GW Monitoring Well #5														
2/14/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-5	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-5	ND	ND	ND	ND	ND	2.3	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #5 Average:														
GW Monitoring Well #6														
8/14/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/10/2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/14/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/28/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/18/2008	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/27/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/18/2009	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well #6 Average:														

TABLE 2-8.B: GROUNDWATER QUALITY DATA SUMMARY

Date	Location	Total N	Fecal Coliforms	Total Coliforms	Enterococcus	Phosphorus Total as P	Total Dissolved Solids
Units		mg/l	MPN/100 ml	MPN/100 ml	MPN/100 ml	mg/l	mg/l
Detection Limit		Calc	2	2	1	0.01	5
GW Monitoring Well #1							
8/14/2007	GW MW-1	2.38	ND	8	42	0.05	1,468
11/7/2007	GW MW-1	2.26	ND	12	ND	0.08	1,442
2/14/2008	GW MW-1	2.75	13	50	85	0.29	1,368
5/14/2008	GW MW-1	2.21	ND	ND	51	0.03	1,280
8/28/2008	GW MW-1	2.75	ND	ND	10	0.26	1,308
11/18/2008	GW MW-1	1.55	ND	23	7	0.49	980
5/27/2009	GW MW-1	4.1	<2	2	22	0.36	1,444
8/18/2009	GW MW-1	2.4	2	240	8	0.05	1,336
Well #1 Average:		**2.6**		**56**	**32**	**0.20**	**1,328**
GW Monitoring Well #2							
8/14/2007	GW MW-2	6.17	ND	2	11	0.29	1,892
11/7/2007	GW MW-2	4.62	ND	280	5	0.03	1,288
2/6/2008	GW MW-2	6.55	ND	30	ND		910
2/13/2008	GW MW-2	3.98	ND	7	3	0.23	1,176
5/14/2008	GW MW-2	22.22	ND	2	3	0.24	1,240
8/28/2008	GW MW-2	3.39	ND	23	10	0.22	1,288
11/18/2008	GW MW-2	2.89	90	ND	ND	0.23	1,288
5/27/2009	GW MW-2	3.64	<2	2	3	0.35	1,436
8/18/2009	GW MW-2	7.301	<2	7	1	0.09	1,380
Well #2 Average:		**6.8**		**50**	**4**	**0.20**	**1,251**
GW Monitoring Well #3							
8/14/2007	GW MW-3	2.87	1,600	8	165	1.23	1,560
12/5/2007	GW MW-3	2.51	ND	23	16	0.51	1,228
2/13/2008	GW MW-3		9	1,600	2,419	1.26	1,296
5/14/2008	GW MW-3	2.33	ND	2	12	0.02	1,432
8/28/2008	GW MW-3	1.83	ND	8	1	0.09	1,524
11/18/2008	GW MW-3	2.71	1,600	280	17	0.94	1,344
5/27/2009	GW MW-3	3.54	2	4	1	0.19	1,456
8/18/2009	GW MW-3	5.81	<2	11	<1	0.07	1,560
Well #3 Average:		**3.1**		**242**	**376**	**0.54**	**1,425**
GW Monitoring Well #4							
8/17/2007	GW MW-4	31.4	ND	22	ND	1.03	1,120
12/6/2007	GW MW-4	15.77	23	23	ND	1.1	1,112
2/14/2008	GW MW-4	14.23	14	1,600	2,419	1.08	1,024
5/14/2008	GW MW-4	29.67	500	>1600	2,419	1.44	1,080
8/28/2008	GW MW-4	11.67	ND	30	25	3.34	860
11/18/2008	GW MW-4	11.49	1,600	240	7	4.78	840
5/27/2009	GW MW-4	11.11	2	13	<1	4.93	1,436
8/18/2009	GW MW-4	14.82	300	300	13	0.44	1,168
Well #4 Average:		**17.5**		**318**	**977**	**2.27**	**1,080**
GW Monitoring Well #5							
2/14/2008	GW MW-5	1.89	17	110	2	0.13	664
5/14/2008	GW MW-5	3.31	ND	4	6	ND	816
8/28/2008	GW MW-5	1.59	500	>1600	5	0.05	764
11/18/2008	GW MW-5	1.91	130	14	ND	0.09	672
5/27/2009	GW MW-5	2.17	<2	8	4	0.4	1,124
8/18/2009	GW MW-5	0.51	<2.0	13	<1.0	0.16	944
Well #5 Average:		**1.9**		**30**	**4**	**0.17**	**831**
GW Monitoring Well #6							
8/14/2007	GW MW-6	9.15	ND	30	59	ND	1,340
12/10/2007	GW MW-6	3.28	ND	ND	103	1.81	936
2/14/2008	GW MW-6	1.73	2	11	5	0.18	1,260
5/14/2008	GW MW-6	1.67	ND	ND	ND	ND	1,260
8/28/2008	GW MW-6	10.7	ND	ND	9	ND	1,324
11/18/2008	GW MW-6	2.92	2	ND	7	1.8	996
5/27/2009	GW MW-6	2.12	<2	<2	11	0.89	1,484
8/18/2009	GW MW-6	6.13	2	130	20	0.05	1,356
Well #6 Average:		**4.2**		**71**	**10**	**0.73**	**1,280**

TABLE 2-8.C: GROUNDWATER PRIORITY POLLUTANTS

Date	Location	Silver	Beryllium	Cadmium	Mercury	Lead	Selenium	Thallium	Aldrin	Alpha-BHC	Beta-BHC	Gamma-BHC (Lindane)	Delta-BHC	Chlordane	4,4'-DDT	4,4'-DDE	4,4'-DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Heptachlor
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Detection Limit		0.2	0.2	0.2	0.2	0.2	2	0.2	0.005	0.01	0.005	0.01	0.005	0.1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
December-07	DD-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
December-08	DD-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov - Dec 2007	GW MW-1	ND	0.3	1	ND	4.2	4.8	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
November-08	GW MW-1	ND	ND	0.7	ND	3.6	4.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov - Dec 2007	GW MW-2	ND	ND	0.4	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
November-08	GW MW-2	ND	ND	0.4	ND	0.5	4.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov - Dec 2007	GW MW-3	ND	0.2	1.4	ND	3.4	3.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
November-08	GW MW-3	ND	ND	0.4	ND	1.4	7.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov - Dec 2007	GW MW-4	ND	1.1	3.4	ND	14	3.6	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
November-08	GW MW-4	ND	ND	ND	ND	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
November-08	GW MW-5	ND	ND	1.4	ND	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nov - Dec 2007	GW MW-6	ND	1.8	4.5	0.27	16	5.7	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
November-08	GW MW-6	ND	0.6	2.1	ND	5.3	6.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Date	Location	Bromoform	Heptachlor epoxide	Aroclor 1242	Aroclor 1254	Aroclor 1221	Aroclor 1232	Aroclor 1248	Aroclor 1260	Aroclor 1016	Toxaphene	Arsenic	Chromium	Copper	Nickel	Antimony	Zinc
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Detection Limit		0.5	0.001	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.5	1	
December-07	DD-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	1.6	8.1	4.4	1.2	7.6
December-08	DD-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	2.2	7.4	4.0	ND	3.9
Nov - Dec 2007	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.8	38	21	37	ND	85
November-08	GW MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.2	13	21	20	ND	1500
Nov - Dec 2007	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	5	6.5	9.1	ND	2100
November-08	GW MW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	3.1	3.2	10	ND	43
Nov - Dec 2007	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.8	22	24	30	ND	120
November-08	GW MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1	4.9	13	13	ND	74
Nov - Dec 2007	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	100	60	110	ND	520
November-08	GW MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	18	4.3	2.8	18	ND	42
November-08	GW MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.6	2.6	7.8	16	ND	33
Nov - Dec 2007	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	170	84	180	ND	180
November-08	GW MW-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.4	65	27	73	ND	93

2.4 Groundwater Flow

Table 2-9 presents the groundwater elevation data below the drainfields and indicates the permitted minimum 2 foot groundwater separation distance is being maintained, in accordance with drainfield mounding projections.

TABLE 2-9: GROUNDWATER ELEVATION DATA

Design Basis	Malibu Village Drainfield Groundwater Separation Data		
Groundwater Elevation (ft)	5.50	4.50	4.30
Surface Elevation @ Monitoring Well (ft)	10.80	10.80	10.80
Bottom of Drainfield Elevation (ft)	8.30	8.30	7.40
Depth to Drainfield Bottom	2.50	2.50	3.40
Depth Drainfield Bottom to Groundwater (ft)	2.80	3.80	3.10
Mounding Allowance	0.38	0.38	0.37
Design Depth Bottom Drain to GW (ft)	2.42	3.42	2.73
Variance Allowed - Depth Drain Bottom to GW (ft)	2.00	2.00	2.00

Date	Measured Depth - Surface to Groundwater (ft)		
9/21/2007	5.55	6.65	7.35
11/17/2007	7.05	6.40	7.30
5/14/2008			
10/24/2008	6.52	5.53	6.23
1/5/2009	7.99	7.32	8.42
4/20/2009	7.21	6.52	7.36
10/13/2009	6.73	6.10	7.01

Date	Computed Depth of Drainfield Bottom to Groundwater (ft)		
9/21/2007	3.05	4.15	3.95
11/17/2007	4.55	3.90	3.90
5/14/2008	4.49	4.46	3.05
10/24/2008	4.02	3.03	2.83
1/5/2009	5.49	4.82	5.02
4/20/2009	4.71	4.02	3.96
10/13/2009	4.23	3.60	3.61

Average	4.36	4.00	3.76
Max	5.49	4.82	5.02
Min	3.05	3.03	2.83

2.5 Surface Water Quality

Table 2-10 presents the surface water quality data for the two monitoring locations illustrated on Figure 1-4.

TABLE 2-10: SURFACE WATER QUALITY DATA

Week of Operation	Month of Operation	Sampling Location	Surface Water														
		Date	Ammonia as N	Organic Nitrogen	Nitrate as N	Nitrite as N	Total Nitrogen	O&G	Enterococcus	Fecal Coliforms	Total Coliforms	Ammonia as N	Organic Nitrogen	Nitrate as N	Nitrite as N	Total Nitrogen	Enterococcus
		Detection Limit	0.01	0.05	0.02	0.02		5	1	2	2						
		Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	MPN/100ml	MPN/100ml	MPN/100ml	mg/l	mg/l	mg/l	mg/l	mg/l	MPN/100ml
1	0	7/26/07	0.01	1.15	0.02	0.02			6.3	900	1600	0.01	1.46	0.02	0.02		12.2
4		8/16/07	0.1	1.88	0.04	<0.02	2		<1	110	1600	<0.01	2.14	0.05	<0.02	2	2419
9	1	9/20/07	0.1	2.22	0.08	<0.02	2.4		14	170	300	0.15	2.11	0.11	<0.02	2.37	9.2
17	1	11/15/07	0.1	0.27	4.87	<0.02	5.24		24	1600	1600	0.12	0.33	4.46	<0.02	4.91	114
26	2	1/17/08	0.05	0.18	1.67	<0.02	1.9		19.9	1600	1600	0.15	0.13	1.45	<0.02	1.73	60.1
30	3	2/14/08	0.02	0.41	4.46	<0.02	4.89		3	26	500	0.05	0.58	4.66	<0.02	5.29	14.2
34	3	3/12/08	0.06	<0.05	1.46	0.11	1.63		13.1	300	300	0.10	0.34	0.63	0.06	1.13	261.3
39	3	4/17/08	0.04	0.65	0.76	0.04	1.49		7.4	170	500	0.09	0.08	0.47	0.02	0.66	61.3
42	4	5/7/08	0.07	<0.05	0.38	<0.02	0.45		31.4	300	1600	0.13	<0.05	0.16	<0.02	0.29	21.6
49	4	6/25/08	0.09	1.11	0.21	<0.02	1.41		126.3	900	900	0.23	1.11	<0.02	<0.02	1.34	>2419.2
53	4	7/24/08	0.02	1.79	ND	ND	1.81		32.3	11	11	0.02	1.33	0.11	ND	1.46	19.8
58	5	8/22/08	ND	0.32	0.31	ND	0.63		2	23	1600	0.12	0.56	0.05	ND	0.73	72.8
62	5	9/19/08	0.08	0.87	0.12	ND	1.07		109.7	28	28	0.07	1.48	ND	ND	1.55	148.3
67	6	10/24/08	<0.01	0.66	0.03	0.02	0.71		6.1	7	17	0.05	0.75	<0.02	<0.02	0.80	142.5
70	6	11/20/08	<0.01	0.72	0.03	<0.02	0.75		45.2	30	240	<0.01	0.95	<0.02	<0.02	0.95	32.3
74	6	12/18/08	0.13	0.8	4.17	<0.02	5.1		980.4	1600	1600	0.17	1.2	4.84	<0.02	6.21	1195.8
83	7	2/19/09	0.05	0.72	2.47	<0.02	3.24		11.9	11	130	0.12	0.57	2.21	<0.02	2.90	90.7
87	7	3/19/09	0.16	0.43	2.76	<0.1	3.35		17.1	130	1600	0.05	0.6	0.24	<0.1	0.89	8.6
93	8	4/30/09	0.07	0.74	0.3	<0.1	1.11		122.3	300	1600	0.14	0.75	0.06	<0.1	0.95	103.9
96	8	5/21/09	0.14	< 0.05	0.68	<0.1	0.82		223.5	80	900	0.11	0.29	0.54	<0.1	0.94	13.5
100	8	6/18/09	<0.01	0.31	1.37	<0.1	1.68		24.9	70	1600	<0.01	0.46	0.29	<0.1	0.75	23.1

3 PERMIT VIOLATIONS

There have been three types of permit violations since start-up of the Malibu Village Wastewater Treatment Facility in July 2007.

3.1 Bacterial

3.1.1 Start-Up Issues

The disinfection system did not become operational until September 2007 with sporadic disinfection system equipment malfunction until December 2007 due predominantly to disinfection system software issues, as well as pump system interface issues. Software issues and pump interface issues were resolved in December 2007.

3.1.2 Equipment Malfunction – May 2008

By email of May 16 2008 (see Appendix B), Lombardo Associates, Inc. notified the LARWQCB of a bacterial permit violation, which was determined to be caused by pre-mature failure of the Pure-O-Tech (PTI) disinfection system UV lights and malfunction of the ozone treatment system – understood to be caused by software malfunction. The malfunctions have been corrected and the disinfection unit has been operating properly as of June 2008.

PTI is under a service contract with the Owner for quarterly visits and response to any disinfection system alarm conditions.

3.2 Total Nitrogen

The Total Nitrogen in the Effluent on June 25, 2008 did not meet permit requirements of TN < 10 mg/l. Starting in April 2008, LAI directed BioSolutions to investigate causes of the impaired, though not permit violations, total nitrogen removal performance of the treatment system. It was determined that solids accumulation in the p traps of the effluent lines draining the Advantex™ units were clogging, with water back-up and flooding manufacturer provided air vents and thereby preventing proper aeration of the Advantex™ unit.

Additionally, water accumulation in the carbon filter tanks (for odor control) was observed by BioSolutions and suggested air flow resistance may be impeding the blower performance and then Advantex™ aeration. To correct this situation the following systems modifications were completed in early September 2008:

1. Remove traps on the discharge lines of Advantex™ pods
2. Addition of new, dedicated Advantex™ ventilation piping
3. Addition of cleanouts on Advantex™ drainlines

3.3 Operator Error – April 2009

After performing numerous onsite testing, it was discovered that a switch to engage tank AF4B pump #1 (which should have been inactive) had been switched to the manual on position causing tank AF4B pump #1 to run continuously. AF4B pump had been taped to the "Off "position and marked to be in the "Off" position but had been accidentally switched on. The switch was deactivated by removing the electrical connection from the switch altogether.

As a consequence of AF4B pump being on, wastewater was bypassing treatment by the major set of treatment recirculating filters (12 units) and the denitrifying filters, and was being discharged to the polishing recirculating filters (2 units) prior to discharge to the disinfection system - resulting in inadequate wastewater treatment.

After the problem was corrected the polishing filters were flushed and cleaned. On April 23, drainfield discharge pumps were shut off and wastewater was recirculated throughout the wastewater treatment system to enable the system to return to normal operation.

At noon on April 24 2009 all normal operating parameters were reset and normal operation of the treatment system resumed.

On Monday April 27 the multimedia filter component of the disinfection unit were dosed with chlorine from the drainfield discharge tank and disinfection system pump chamber to kill any bacterial growth in the disinfection and drainfield discharge units. The disinfection unit O&M operator, Pure-o-Tech serviced the unit on Tuesday April 28 to ensure it is operating properly and that UV unit quartz sleeves are clean.

As the treatment plant effluent discharges to drainfields no adverse public health impacts and insignificant water quality are expected from this incident.

4 SAMPLING PROTOCOL

After a sampling frequency misunderstanding was addressed, weekly sampling in accordance with Table 1-1 was resumed on February 19, 2009.

APPENDIX A

A-1: California Regional Water Quality Control Board- Los Angeles Order No. 01-010: Waste Discharge Requirements

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. 01-010
WASTE DISCHARGE REQUIREMENTS
FOR
MALIBU CREEK PRESERVATION COMPANY
(Malibu Creek Plaza)
(File No. 00-066)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

1. Malibu Creek Preservation Company, LLC (hereinafter Discharger) owns the Malibu Creek Plaza, located at 3822-3896 Cross Creek Road and 23357-23361 Pacific Coast Highway (the Site), Malibu, California. The Malibu Creek Plaza (Figure One) is comprised of a mixture of retail and commercial businesses including a multi-screen theater, two full serve restaurants, an ice cream parlor, a dry cleaner, a bank, a pet store where pets are also groomed, and various other retail businesses.

2. The facility is located in an unsewered area of the City of Malibu (City). No public sewers have been scheduled for construction in the vicinity of the site. The City currently does not provide wastewater collection and treatment utilities; rather, the City primarily relies upon subsurface disposal system for disposal of domestic, commercial, and industrial wastewater.

3. On December 10, 1999, Malibu Creek Preservation Company, LLC, filed a report of waste discharge pursuant to a directive from this Regional Board. The Discharger estimates that it discharges an average of 24,000 gallons per day (gpd) of primary treated septic system[1] effluent to multiple leaching/disposal fields. No meters are installed to measure the actual amount of sewage discharged however. According to the Discharger, the existing septic system and disposal system is designed for a maximum daily flow of up to 42,000 gpd.

4. The Discharger installed the existing septic system and leachfield disposal system during the construction of Malibu Creek Plaza as approved by the County of Los Angeles and the City of Malibu. Beneath the parking lot of Malibu Creek Plaza, the Discharger has installed twelve septic tanks, eleven leachfields, and two grease traps. The Malibu Creek Plaza disposes of all domestic and commercial wastewater through the septic tank/leachfield disposal system. The commercial strength effluent is a result of elevated BOD and oil and grease loads in part from restaurant wastes. Wastewater from the restaurants and the theater enter grease interceptors and receive pretreatment prior to

[1] The term septic system is used in this document to reflect that currently, the wastewater receives only primary treatment through a series of grease interceptors and septic tanks, prior to disposal into leachfields. The Discharger shall install a treatment system that will produce a disinfected and secondary treated effluent.

January 11, 2001

entering the septic tanks. The grease interceptors are equipped with a commercially sized passive filter device. The primary components of the treatment system at Malibu Creek Plaza consist of one 1,500 gallon septic tank, two 2,000 gallon septic tanks, four 3,000 gallon septic tanks, one 3,500 gallon septic tank, three 7,500 gallon septic tanks, two 1,500 gallon grease interceptors and one 7,500 gallon main dosing tank for discharge to the eleven leach fields.

5. During 1999, the Regional Board and City of Malibu conducted field work together, sampling groundwater and surface water on and nearby the Discharger's property. The Regional Board concludes that sewage discharged beneath the Discharger's property causes groundwater pollution, and is also released to Malibu Creek when the creek level is lowered, typically by the Malibu Lagoon breaching. Groundwater monitoring of wells located at the southern end of the shopping center and north of Pacific Coast Highway document that the groundwater contains bacteria such as total and fecal coliform, enterococcus, and E. Coli. The groundwater also contains nutrients, primarily in the form of ammonia. The presence of ammonia and not nitrate shows that the groundwater is depleted in oxygen in part due to the high volume loading of primary treated sewage into the groundwater. In addition, there are other shopping centers upgradient of Malibu Creek Preservation Company's property that discharge similar quantities and qualities of wastewater to the groundwater, and add nutrients and bacteria to the groundwater. Malibu Creek Preservation Company is the discharger closest to Malibu Creek in this area.

6. On February 18, 2000, Regional Board staff sampled three of Malibu Creek Preservation Company's septic tanks to characterize wastewater discharges from septic tanks to leachfields. Volatile organic compounds (VOCs) were detected in the Malibu Creek Preservation Company, LLC's discharge. The following table shows the maximum concentrations of the volatile organic compounds detected in septic tank discharges:

Chemical	Concentrations
Chloroform	9 µg/L
Tetrachloroethene (PCE)	17 µg/L
Trichloroethene (TCE)	70 µg/L
Toluene	44 µg/L

7. On April 10, 2000, the Regional Board Executive Officer issued a Notice of Violation (NOV) to Malibu Creek Preservation Company, LLC. for discharging domestic wastewater containing volatile organic compounds to the disposal fields in violation of Los Angeles Regional Water Quality Control Board Basin Plan groundwater quality objectives and in excess of State and federal Maximum Contaminant Levels (MCL). The

NOV required the Discharger to cease discharging volatile organic compounds to its disposal fields. Malibu Creek Preservation Company, LLC proposed to implement a source control investigation and pollution prevention program with the purpose of positively identifying and eliminating the sources of toxic chemicals being discharged to the septic system.

8. The wastewater receives only primary treatment in the septic system before being discharged to the disposal fields. The effluent quality and quantity discharged from the septic tank system is not measured, as a result, the effluent quality and quantity from the septic tank systems is not well documented. On February 18, 2000, Regional Board staff did sample some of the Discharger's septic tanks, however. The existing septic system is not capable of disinfecting wastewater or removing nutrients that are discharged to the leachfields.

9. Discharges from the existing septic tank system infiltrate groundwater through the multiple leaching/disposal fields. The wastewater disposal fields are close to Malibu Creek and Malibu Lagoon. Groundwater at the Malibu Creek Plaza site is in hydraulic connection to Malibu Creek, Lagoon, and the Pacific Ocean. The Malibu Creek and Malibu Lagoon are recognized as impaired by both nutrients and bacteria, as detailed in the State of California's 303d listing. Groundwater monitoring is being required since groundwater impacts have been documented at the site, and the groundwater is eventually discharged to Malibu Creek, Malibu Lagoon and the Pacific Ocean. The Discharger must upgrade the existing septic system and install disinfection and nutrient removal equipment in order to meet the proposed effluent discharge limits prescribed in this Order.

10. The Regional Board encourages the Discharger to consider upgrades that would enable the treatment system to meet water reclamation standards and provide greater flexibility for disposal/reuse of the treated wastewater from the treatment system.

11. The facility is located in Section 31, Township 1S, Range 17W (San Bernardino Base & Meridian), and is at a latitude 34° 02' 05" N and a longitude of 118° 41' 00" W. Some of the hydrologic features near the facility include:

- Malibu Creek, which is approximately 200 feet from the nearest leachfield at the site;
- Malibu Lagoon, which is approximately 200 feet south of the site (and begins south of Pacific Coast Highway).
- The Pacific Ocean, which is approximately 1400 feet to the south of the site.

12. The Discharger does not currently monitor groundwater in order to evaluate any impacts from its discharge of wastewater, however, the Regional Board is now requiring the Discharger to do so. Additionally, other nearby dischargers are monitoring groundwater.

13. The septic tanks and disposal fields for the Malibu Colony Plaza are located in the Malibu Creek Hydrologic Subarea and overlie the Malibu Valley Groundwater Basin.

14. The Regional Board adopted a revised Water Quality Control Plan for the Los Angeles Region on June 13, 1994. The Water Quality Control Plan contains beneficial uses and water quality objectives for groundwater within the Malibu Valley Groundwater Basin.

15. Discharges from the leachfields infiltrate groundwater. Existing beneficial uses designated for groundwater include agricultural supply and potential municipal, domestic and industrial supply. With regard to the use of groundwater for municipal and domestic supply, the Discharger has stated that there are no public water wells downgradient of the leachfields. Potable water consumers in the area receive water from the Los Angeles County Waterworks District No. 29, a water retailer that receives water from the Metropolitan Water District of Southern California via the West Basin Municipal Water District, since 1961.

16. Groundwater underlying the leachfields is in hydraulic connection with Malibu Creek, Malibu Lagoon, and the Pacific Ocean. Beneficial uses designated for these surface waters include, among others: contact and non-contact water recreation; marine habitat; shellfish harvesting (potential); wildlife habitat; and spawning (potential). A Water Quality Assessment, adopted by this Regional Board on May 18, 1998, identified beaches along the Santa Monica Bay (including the Malibu area) as impaired by pathogens for contact water recreation.

17. The requirements in this Order are in conformance with the goals and objectives of the Water Quality Control Plan. The Discharger must upgrade the existing treatment system to disinfect and remove nutrients from the wastewater.

18. The Discharger is not able to quantify potential impacts resulting from the discharge to groundwater and nearby surface waters since there is no current groundwater or surface water monitoring conducted. Other potential impacts include the discharge of nutrients and bacteria to surface water, the corresponding "water imbalance" whereby the high volume of wastewater discharged to groundwater, can cause an increased discharge of groundwater to surface water. The Discharger must upgrade the existing septic system to meet the proposed limits in this Order for total and fecal coliform and enterococcus and nutrients. The Discharger will be required to monitor for total coliform, fecal coliform and enterococcus bacteria in accordance with Monitoring and Reporting Program No. CI 8226.

In addition, the Discharger shall monitor for nutrients (nitrate, nitrite, ammonia and organic nitrogen, phosphorus) and surfactants in accordance with Monitoring and Reporting Program No. CI 8226.

19. A groundwater monitoring program and a surface water monitoring program are necessary to evaluate any impacts from the discharge of waste to groundwater. The monitoring is necessary to help determine the rate and volume of sewage movement to nearby surface and ocean water. A groundwater and a surface water monitoring program shall be established, so that groundwater and surface water may be sampled and analyzed to determine the degree that discharges from the septic systems impact water quality.

20. This project involves an existing facility and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.), in accordance with California Code of Regulations, Title 14, Chapter 3, Section 15301.

21. The Discharger has indicated that it can not immediately comply with the requirements contained in these Waste Discharge Requirements because the treatment system needs to be upgraded. In order for the Discharger not to be in immediate violation of requirements in the Waste Discharge Requirements, the Regional Board has included a Time Schedule Order (TSO) that will allow the Discharger to complete all needed upgrades within a timeframe specified in the TSO.

The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for this discharge, and has provided them with an opportunity to submit their written views and recommendations for the requirements.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the requirements.

IT IS HEREBY ORDERED that Malibu Creek Preservation Company (Discharger) shall comply with the following:

A. INFLUENT LIMITATIONS

1. Waste discharged shall be limited to certain commercial discharges from a mixture of retail and commercial businesses at the shopping center including a multi-screen theater, two full serve restaurants, an ice cream parlor, a dry cleaner, a bank, a pet store where pets are also groomed, and various other retail businesses. No water softener regeneration brines or industrial waste waters shall be discharged to sewers that flow to the septic system.

2. The maximum daily flow of influent to the collection system shall not exceed the design capacity of 42,000 gpd. This flow limitation also applies to effluent discharged to the leachfields.

3. No volatile organic compounds are to be discharged into the wastewater disposal system.

B. EFFLUENT LIMITATIONS

1. The pH of wastes discharged shall at all times be between 6.5 to 8.5 pH units.

2. The wastewater discharged into the leachfields shall not contain constituents in excess of the following limits:

Constituent	Units	Monthly Average	Maximum
BOD_5	mg/L	30	45
Suspended solids	mg/L	30	45
Turbidity	NTU	10	15
Oil and grease	mg/L	--	15
TDS	mg/L	--	2,000
Sulfate	mg/L	--	500
Chloride	mg/L	--	500
Total Nitrogen	mg/L	--	10
Fecal coliform[a]	MPN/100mL	--	200
Enterococcus [b]	MPN/100mL	24	104

a) The limits for coliform shall apply, prior to discharge of the effluent into the leachfields
b) The Enterococcus limit is based on geometric mean of at least 5 equally spaced samples in any 30-day period.

3. The wastewater discharged to the leachfields shall not contain salts, heavy metals, or organic pollutants at levels that would impact groundwater, or groundwater that may be in hydraulic connection with surface waters designated for marine aquatic life or body contact recreation.

4. Any wastes that do not meet the foregoing requirements shall be held in impervious containers, and discharged at a legal point of disposal.

C. PROHIBITIONS

1. There shall be no sanitary sewer overflows or discharge of wastes to waters of the State (including storm drains) at any time.

2. No part of the leachfield disposal system shall be closer than 150 feet to any water well. No part of the leachfield disposal system shall be closer than 100 feet to any stream, channel or other watercourse.

3. No part of the septic system and the leachfields shall extend to a depth where wastes may deleteriously affect an aquifer that is usable for domestic purposes. In no case may the septic system and the leachfields extend to within 5 feet of the zone of historic or anticipated high ground water level. The Discharger must submit certification that the leachfields meet this requirement.

4. Wastes shall not be disposed of in geologically unstable areas or so as to cause earth movement.

5. Wastes discharged shall not impart tastes, odors, color, foaming or other objectionable characteristics to the receiving water.

6. Adequate facilities shall be provided to divert surface and storm water away from the septic tanks, leachfields and from areas where any potential pollutants are stored.

7. The septic tanks, sewer collection system and the leachfields, shall be protected from damage by storm flows or runoff generated by a 100-year storm.

8. There shall be no onsite disposal of sludge. Any offsite disposal of sewage or sludge shall be made only to a legal point of disposal. For purposes of this Order, a legal disposal site is one for which requirements have been established by a California Regional Water Quality Control Board, and which is in full compliance therewith. Any sewage or sludge handling shall be in such a manner as to prevent its reaching surface waters or watercourses.

9. The septic system, including the sewers that are a part of the septic system and the leachfields, shall be maintained in such a manner that at no time will sewage be permitted to surface or overflow at any location.

10. Sewage odors shall not be detectable.

11. Wastes discharged shall at no time contain any substance in concentrations toxic to human, animal, plant, or aquatic life.

12. The discharge of waste shall not create a condition of pollution, contamination, or nuisance.

13. The direct or indirect discharge of any wastewater to surface waters or surface water drainage courses is prohibited.

D. PROVISIONS

1. The Discharger shall file with the Regional Board technical reports on self-monitoring work performed according to the detailed specifications contained in Monitoring and Reporting Program No. CI 8226, as directed by the Executive Officer. The results of any monitoring done more frequently than required at the location and/or times specified in the Monitoring and Reporting Program shall be reported to the Regional Board. Monitoring and Reporting Program No. CI 8226 contains requirements, among others, specifying the following:

a) The Discharger shall ensure that the capacity of the disposal system is adequate for the discharge and that adequate steps are taken to accommodate system failures or to deal with loss of assimilative capacity of the soils.

b) The Discharger shall calculate an annual water balance to determine: the assimilative capacity of the soils and groundwater at the site to adequately attenuate the sewage discharged, the quantity of groundwater (affected by the onsite sewage disposal) that enters Malibu Creek, the rate of groundwater movement at the Site to Malibu Creek, and how the discharge affects the rate.

c) A monitoring program for groundwater shall be established so that the groundwater upgradient and downgradient can be measured, sampled, and analyzed to determine if discharges from the leachfield disposal system have impacted, or are impacting, water quality. In addition, the Discharger must complete a study to determine the degree of the hydraulic connection between surface water and the leachfields. Submittal of a plan for monitoring groundwater, which is subject to the approval of the Executive Officer, is due by March 30, 2001.

d) A surface water monitoring program shall be established so that surface water, if present, in Malibu Creek can be measured, sampled, and analyzed

to determine if discharges from the site have impacted or are impacting water quality. Submittal of a plan for monitoring surface water, which is subject to the approval of the Executive Officer, is due by March 30, 2001.

2. The Discharger shall provide a report regarding water conservation and water reuse by February 28, 2001.

3. The Discharger shall upgrade the septic system to include disinfection and nutrient removal to meet the limits contained in B.2 above prior to discharge into the leachfield disposal system, in accordance with Time Schedule Order No. 01-011. Currently, the Total Maximum Daily Loading for nutrients into the Malibu Creek Watershed is being studied. When the study is completed, nutrient loading rates will be assigned to dischargers. The Discharger shall comply with waste load allocations developed and approved pursuant to the process for the designation of Total Maximum Daily Loads for the Malibu Creek Watershed. The Regional Board may require that the Discharger meet nutrient discharge limits stricter than those imposed in this Order No. 01-010.

4. The Discharge shall cause the treatment system to be inspected no less than twice (once every 2 years) during the life of the permit by an inspector to be retained and suggested by the Discharger but subject to the approval of the Executive Officer.

5. The Discharger shall comply with all applicable requirements with respect to Assembly Bill No. 885.

6. The Discharger shall notify this Regional Board by telephone within 24 hours of any adverse condition as a result from the discharge of wastewater from this facility; written confirmation shall follow within one week. This information shall be confirmed in the next monitoring report. In addition, the report shall also include the reasons for the violations or adverse conditions, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.

7. The Discharger shall notify the Regional Board within 24 hours, by telephone, of any bypassing or surfacing of wastes. Written confirmation shall follow within one week and shall include information relative to the location(s), estimated volume, date and time, duration, cause, and measures taken to effect cleanup and measures taken to prevent any recurrence.

8. This Order does not alleviate the responsibility of the Discharger to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency.

9. Any discharge of wastewater from the sewage disposal system (including the wastewater collection system) at any point other than specifically described in this Order is prohibited, and constitutes a violation of the Order.

10. After notice and opportunity for a hearing, this Order may be terminated or modified for causes including, but not limited, to:

    a) Violation of any term or condition contained in this Order;

    b) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts; and

    c) A change in any condition, or the discovery of any information, that requires a temporary or permanent increase, reduction or elimination of the authorized discharge.

11. The Discharger shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

12. The Discharger shall file a written report with this Regional Board at such time as the daily waste flow has reached or exceeded 31,500 gpd (75% of the maximum design flow of 42,000 gallons per day). The report shall detail provisions to cope with excess flows, provided, however, that the foregoing shall not be construed to allow flow in excess of 42,000 gpd.

13. Existing groundwater monitoring data indicates that the Discharger's activity is causing groundwater pollution as defined by Section 13050 of the California Water Code. The Discharger shall submit, within 90 days, plans for measures that will be taken, or have been taken, to mitigate any long-term effects that result from the subsurface disposal of wastes. Any water quality impact to surface and groundwater such as, but not limited to, risks to human health from pathogens, and accelerated eutrophication of surface waters from nutrients in waste waters shall be reported.

14. This Order includes "Standard Provisions Applicable to Waste Discharge Requirements (November 7, 1990)." If there is any conflict between provisions stated herein and the "Standard Provisions," those provisions stated herein will prevail.

15. The Discharger shall submit to the Regional Board, within 180 days of the adoption of this Order, procedures that will be, or have been, taken to ensure that no discharge or recycling of any untreated or partially treated sewage, will result from the treatment facility, in the event of equipment failure.

16. These waste discharge requirements contained in this Order will remain in effect for a period of (5) years after issuance to a Discharger by the Regional Board Executive Officer. Should the Discharger wish to continue discharging to groundwater under the terms and conditions contained in this Order for a period of time in excess of five years, the Discharger must file an updated Report of Waste Discharge with the Regional Board, no later than 180 days in advance of the expiration date of the Order, for consideration of issuance of new or revised waste discharge requirements. Any discharge of waste five years after the date of issuance, without obtaining new Waste Discharge Requirements from the Regional Board is a violation of the California Water Code, Section 13264. The Regional Board is authorized to take appropriate enforcement action for any noncompliance with this provision including assessment of penalties.

17. In accordance with Water Code Section 13263(g), these requirements shall not create a vested right to continue to discharge. All discharges of waste into the waters of the State are privileges, not rights, and are subject to rescission or modification.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on January 11, 2001.

Dennis A. Dickerson
Executive Officer